

AMENDMENTS TO THE CLAIMS

Please **AMEND** claims 1, 10, 11, and 19 as shown below.

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A watermark insertion apparatus comprising:
a watermark insertion section that inserts in a program watermark that differs for each ~~program distribution destination~~ of a plurality of distribution destinations of said program; and
a code insertion section that inserts in said program per each of the plurality of distribution destinations a watermark verification code that prevents said program from operating correctly when said watermark is tampered with[[;]], wherein:
said the watermark verification code inserted in said program distributed to the plurality of distribution destinations, is made identical regardless of said distribution destinations;
for said program to be made to operate correctly, said watermark verification code is necessary;
variables are assigned functions of values of the watermark, where the sum of said functions of said values is zero; and
the sum of said variables is added, as watermark verification code, in a decision statement of the program so that the result of the decision statement of the program is not affected if the watermark and the watermark verification code have not been tampered, but is affected otherwise.

2. (Original) The watermark insertion apparatus according to claim 1, wherein said watermark is generated from ID information that uniquely determines a program distribution destination.

3. (Original) The watermark insertion apparatus according to claim 1, further comprising a function insertion section that defines a function that outputs a predetermined constant from said watermark and inserts an expression that assigns said function to a variable in said program; wherein said watermark verification code is a conditional branch that determines whether said variable and said constant are equal, and when said variable and said constant are not equal halts said program; and said watermark verification code is made identical regardless of said distribution destination.

4. (Original) The watermark insertion apparatus according to claim 1, wherein said watermark verification code is necessary for said program to be made to operate correctly.

5. (Original) The watermark insertion apparatus according to claim 4, wherein said watermark verification code has inserted a calculation expression that does not affect a decision statement of a decision branch generated from said watermark in said decision branch extracted from said program.

6. (Original) A watermark extraction apparatus comprising:
a program input section that inputs a program in which the watermark insertion apparatus according to claim 1 has inserted said watermark and said watermark verification code; and
a watermark detection section that extracts said watermark from said program and generates ID information that uniquely identifies said distribution destination based on said watermark;

wherein a distribution destination is identified based on generated said ID information.

7. (Original) A program illegal distribution prevention system comprising:
the watermark insertion apparatus according to claim 1;
a program input section that inputs a program in which the watermark insertion apparatus according to claim 1 has inserted said watermark and said watermark verification code; and
a watermark detection section that extracts said watermark from said program and generates ID information that uniquely identifies said distribution destination based on said watermark;

wherein a distribution destination is identified based on generated said ID information.

8. (Original) The program illegal distribution prevention system according to claim 7, wherein said watermark insertion apparatus is provided at said distribution destination.

9. (Original) A watermark insertion method wherein:

watermark that differs for each program distribution destination is inserted in said program and said watermark is used;

said program is prevented from operating correctly when said watermark is tampered with; and

watermark verification code that is identical regardless of said distribution destination is inserted in said program.

10. (Currently Amended) A watermark insertion method comprising:
inserting [[a]] in a program watermark that differs for each program distribution destination; and
converting a part other than a location at which said watermark is inserted while maintaining specifications of said program.

11. (Currently Amended) A computer-readable medium having a watermark insertion program that causes a computer to: insert a program watermark that differs for each ~~program distribution destination~~ of a plurality of distribution destinations of said program ~~in said program~~ and ~~use said watermark; and~~
~~prevent said program for distribution from operating correctly when said watermark is tampered with; and insert watermark verification code that is identical regardless of said distribution destination in said program for distribution~~ insert in said program per each of the

plurality of distribution destinations a watermark verification code that prevents said program from operating correctly when said watermark is tampered with; wherein:

the watermark verification code inserted in said program distributed to the plurality of distribution destinations, is made identical regardless of said distribution destinations;

for said program to be made to operate correctly, said watermark verification code is necessary;

variables are assigned functions of values of the watermark, where the sum of said functions of said values is zero; and

the sum of said variables is added, as watermark verification code, in a decision statement of the program so that the result of the decision statement of the program is not affected if the watermark and the watermark verification code have not been tampered, but is affected otherwise.

12. (Original) A watermark insertion apparatus comprising: a watermark insertion section that inserts in a program watermark that differs for each program distribution destination; and a conversion section that converts a part other than a location at which said watermark is inserted while maintaining specifications of said program.

13. (Original) The watermark insertion apparatus according to claim 12, wherein said conversion section inserts an execution code pair that does not affect specifications in a part other than a location at which said watermark is inserted.

14. (Original) The watermark insertion apparatus according to claim 12, wherein identification information is stored that indicates an insertion location of said watermark.

15. (Original) The watermark insertion apparatus according to claim 14, wherein said identification information is a method name or line number.

16. (Original) The watermark insertion apparatus according to claim 12, wherein said conversion section performs obfuscating so that specifications are not affected in a part other than a location at which said watermark is inserted.

17. (Original) A watermark extraction apparatus comprising: a program input section that inputs a program in which the watermark insertion apparatus according to claim 12 has inserted said watermark; and a watermark detection section that extracts said watermark from said program; wherein a distribution destination is identified based on extracted said watermark.

18. (Original) A watermark extraction apparatus comprising: a program input section that inputs a program in which the watermark insertion apparatus according to claim 15 has inserted said watermark; and a watermark detection section that obtains said identification information, identifies a watermark insertion location from said identification information, and

extracts said watermark from only identified said watermark insertion location; wherein a distribution destination is identified based on extracted said watermark.

19. (Currently Amended) A computer-readable medium having a program that causes a computer to: insert in a program watermark that differs for each program distribution destination; and convert a part other than a location at which said watermark is inserted without changing specifications of said program.

20. (Original) The watermark insertion apparatus according to claim 12, wherein said conversion section converts a sequence of a part that is a part other than a location at which said watermark is inserted and is a part that does not affect specifications even if said sequence is switched around.

21. (Original) The watermark insertion apparatus according to claim 20, wherein historical information on a part that does not affect said specifications is held, and using said historical information, conversion of a part that does not affect said specifications is made to differ for each distribution destination.